

REMARKS/ARGUMENTS

In response to the Office Action mailed November 2, 2005, Applicants amend their application and request reconsideration. No claims are canceled in this amendment and new claims 8-14 are added so that claims 1-14 are now pending.

Pursuant to a species election requirement and a corresponding election, only claims 1-3 and 7 have been examined. Claim 1 is acknowledged to be a generic claim as to claims 1-7 so that upon allowance of that claim, claims 4-6 must be rejoined to the prosecution. A minor error was noted in claim 5 and is corrected here.

In this Amendment claims 8-14 are added. These new claims are intended to claim the invention described and claimed originally but in a somewhat different way. These claims are clearly directed to a printed-circuit board assembly that includes three elements, a connector, and first and second printed-circuit boards that are connected to the connector. These claims describe the connection, through the connector, of signal lines on the first and second printed-circuit boards. These new claims also describe the presence of open conductors on both the first and second printed-circuit boards. Those open conductors are not connected to any signal lines. Rather, as described in the patent application, these open conductors can be the sources of resonances and undesired performance at high frequencies. The newly added claims also describe the presence of lossy elements connected to the open conductors in order to eliminate these undesired electrical characteristics as described in the patent application.

The new claims are based upon the original claims. New claims 8 and 9 are supported by the description pertaining to Figure 1 of the patent application. New claim 8 is clearly generic as to claims 8-13. New claim 10 encompasses and is supported by the embodiments of Figures 3 and 5 of the patent application. New claim 11 encompasses and is supported by the embodiments of Figures 4 and 6 of the patent application. New claims 12 and 13 respectively encompass the embodiments of Figures 7 and 8 and are supported by the disclosure concerning those embodiments. New claim 14 is copied from original claim 7.

The important feature of the invention, for the purposes of responding to the first Office Action, is that the open conductors, i.e., the conductors that are never connected to any signal lines, are connected directly or indirectly to lossy elements so that any electrical energy that would resonate is dissipated in these lossy elements and does not provide undesired electrical characteristics.

Examined claims 1-3 and 7 were rejected as anticipated by Jones (U.S. Patent 5,734,208). This rejection is respectfully traversed.

What is described in Jones is quite different from what is described in the present patent application. To be sure, Jones concerns an assembly that includes two printed circuit boards and a connector that provides electrical connection between conductors on the first and second printed-circuit boards. Jones is concerned with detecting whether the second printed-circuit board is connected to the first printed-circuit board. In order to provide detection for the presence of the second printed-circuit board, the circuit board 30 of the examples in Jones includes a short circuit 36 between two of the terminals of the printed-circuit board 30. Those terminals match respective terminals of the connector 22a that are connected to a transistor 44.

The signal line of particular importance to Jones is the signal line 20. Jones desires that signal line be properly terminated no matter whether the circuit board 30 is connected to the connector 22a or disconnected from that connector. When the circuit-board 30 is absent so that the pins 24a and 24b of the connector 22a are not connected to each other, then, as described at column 3 of Jones, signal line 20 is terminated as an open circuit because the gate of the transistor 44 is biased by the voltage V_{CC} . By contrast, when the printed-circuit board 30 is inserted in the connector 22a so that pins 24a and 24b are short circuited to each other, the potential applied to the gate of the transistor 44 is reduced and the ground voltage V_{SS} appears at the terminal 20 so that the terminal 20 is grounded. In that case, the signal line 38 is connected to the same pin of the connector 22a to which the signal line 20 is connected.

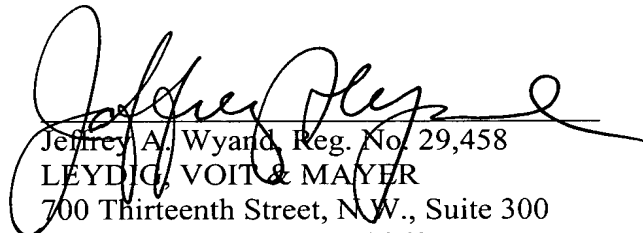
If Jones is applied to the language of claim 1, then the line 38 is a signal line and all of the terminals on the circuit board 30, other than the terminals 34a, 34b, and 34c, are potentially open circuit pins. Clearly, there are no lossy elements connected in any way to any of those open pins. Moreover, the assertion that the resistor 40 is a lossy element, while correct, fails to meet the language of any examined claim. The examined claims require that the lossy elements be connected to open pins. In Jones, the lossy element 40 is connected to a signal line 38 which, by definition, according to the present patent application and claims, is not an open pin of either the circuit board 30 or the connector 22a. It would appear that the language of the claims may have led to some confusion and misinterpretation. This conclusion is also supported by the reference in the Office Action to element "41" as a lossy element. There is no element 41 in Jones although circuits 41' and 41" are present. Each of

those circuits includes a resistor but the circuits themselves cannot be considered lossy elements. Moreover, these lossy elements are not connected to open pins when the printed-circuit board 30 is inserted in the connector 22a.

To summarize, Jones does not describe an arrangement in which, as in claim 1, lossy elements are connected to electrically open pins of a connector. Therefore, on that basis and for the other reasons stated above, there can be no anticipation of the examined claims by Jones. It is further apparent that none of the new claims can be anticipated by Jones.

Reconsideration and allowance of the examined claims, rejoining of the non-examined claims 4-6 to the examination, and allowance of all of claims 1-13 are earnestly solicited. Since no examined claim has been amended, any new rejection based upon newly cited prior art or a different legal ground cannot properly be a final rejection.

Respectfully submitted,


Jeffrey A. Wyand, Reg. No. 29,458
LEYDIG, VOIT & MAYER
700 Thirteenth Street, N.W., Suite 300
Washington, DC 20005-3960
(202) 737-6770 (telephone)
(202) 737-6776 (facsimile)

Date:

JAW/jf

